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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/786,279

Applicant(s)

BANISTER, MARK

Examiner

DUSTIN Q. DAM

Art Unit

1728

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1, 5-10, 14-33 and 36-38 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1, 5-10, 14-33, and 36-38 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-806)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 16, 2012 has been entered.
2. In view of the Amendments to the Claims filed April 16, 2012, the rejections of claims 6-8, 10, 14, and 15 under 35 U.S.C. 112, first paragraph, previously presented in the Office Action sent March 16, 2012 have been withdrawn. In view of the Amendments to the Claims filed April 16, 2012, the rejections of claims 1, 5-11, 14-33, and 36-38 under 35 U.S.C. 103(a) previously presented in the Office Action sent March 16, 2012 have been substantially maintained and modified only in response to the Amendments to the Claims.
3. Claims 1, 5-10, 14-33, and 36-38 are currently pending and have been fully considered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, 5-11, 14-33, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over MURASKO et al. (U.S. PG-Pub 2002/0159245 A1) in view of CURTIN (U.S. Patent 6,160,215), YAMAMURA (JP 62-106671 of record), and KAKINOTE et al. (JP 59-217991 of record).

a. With regard to claim 1, MURASKO et al. discloses a fully contained solar powered laminated electrical tape illumination device comprising a plurality of flexible layers in a stack: a flexible base sealing layer (“flexible” is a relative term interpreted to include a material with some degree of flexibility; substrate 202, FIG. 2 is interpreted to read on the claimed “flexible base sealing layer” because it is a supporting layer sealed to the various components depicted in FIG. 2 and comprises some degree of flexibility as [0024] provides example materials that have some degree of flexibility); a flexible thin film battery layer (204, FIG. 2 & see [0024] “204 is a rechargeable thin-film battering” which inherently comprises some degree of flexibility); a flexible electrical circuitry layer (electric leads 214, FIG. 2 are interpreted to read on the claimed “flexible circuitry layer” because [0027] discloses the layer of leads 214 electrically connects various components and inherently comprises some degree of flexibility); a flexible thin film

photovoltaic layer structurally capable of producing electricity (such as 208, FIG. 2 which is interpreted to read on the claimed "flexible thin film photovoltaic layer" because it is a thin film, at least thinner than a thicker film, and inherently comprises some degree of flexibility; see [0023] disclosing "photocell 208 receives solar energy or radiation from the ambient environment around illumination device 200 and converts such energy into electrical energy for storage in power supply 204"); an illuminator layer (206, FIG. 2 & see [0023] "light emitting device 206"); and a protective surface (such as the "Light-transmissive electrically insulative materials" disclosed in [0025] because the cited insulative materials protect the surface of the device at least as a physical barrier), wherein all of the aforesaid layers are flexible and the assembled laminated device is also flexible (as cited above, all the cited layers comprise some degree of flexibility including the final structure), and wherein the electrical circuitry layer connects the battery layer and the photovoltaic layer (see [0027]).

MURASKO et al. does not appear to explicitly disclose an illumination device wherein (1) the claimed layers are overlying one another and stacked in order with the electrical circuitry layer sandwiched directly between the battery layer and the photovoltaic layer and wherein (2) an adhesive having a removable covering is applied to said protective surface or base sealing layer.

(1) However, absent contrary evidence that the particular claimed order of component layers is critical or produces an unexpected result, the rear-arrangement of parts, in the instant case the rear-arrangement of the component layers, is a matter of design choice (see MPEP 2144.04{VI}{C}). Additionally, and completely separate,

YAMAMURA discloses reduction in the number of parts of a laminated solar battery device and simplified assembly achieved by disposing a charge storage device, a capacitor, on the non-light receiving surface of the thin-film solar cell assembly (see Constitution section of ABSTRACT and FIG. 1). KAKINOTE et al. discloses a conventional arrangement including various component layers such as translucent illuminator 7 overlying a thin-film photovoltaic layer 11 and other underlying layers (FIG. 1-2). Thus, it would have been obvious to a person having ordinary skill in the art to have tried arranging the claimed component layers in the specifically claimed overlying order because the claimed overlying order of component layers is one in a finite number of immediately recognizable arrangements, as there are only 7 sequential layers, within the technical grasp of a skilled artisan in which the selection of component layers provides more than reasonable expectation of success (see MPEP 2141(III)(E)) because YAMAMURA teaches a reduction in parts when arranging a charge storage device on a non-light receiving surface of a thin-film solar cell and KAKINOTE et al. evidences the conventional arrangement of component layers overlying one another.

(2) CURTIN discloses a photovoltaic device. CURTIN and MURASKO et al. are analogous arts because both are concerned with photovoltaic cells. CURTIN discloses applying an adhesive (26, FIG. 6) having a removable covering (28, FIG. 6) to the back of a photovoltaic layer in order to adhere the photovoltaic device to a desired surface at the place of installment (ABSTRACT).

Thus, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to have combined the device of modified MURASKO et al. with the adhesive covering of CURTIN because the combination of elements known in the prior art is a matter of obviousness (see MPEP 2141{III}{A}) and because it would provide for a means to adhere the device of MURASKO et al. to a surface for installment. The combination of MURASKO et al. and CURTIN is interpreted to provide the adhesive to, at least indirectly, said protective surface of base sealing layer as both layers are integral in the device of MURASKO et al.

b. With regard to claims 5 and 6, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device further comprising an alternative electrical power inlet and outlet connection point in electrical connection with said electrical circuitry layer (see [0037] disclosing use of a second electroluminescent lamp connected to the common power supply which is interpreted to read on the claimed alternative electrical power inlet and outlet connection point because the second lamp inherently comprises the inlet and outlet connection points by virtue of electrical connection to the common power supply, which is also electrically connected to the cited electrical circuitry layer as discussed above). The second electroluminescent lamp electrically connected to the common power supply, cited flexible thin film battery layer, is interpreted to read on the claimed thermally conductive layer in contact with one or more of said layers structurally capable of

dissipating heat from said device because the second lamp is thermally connected to at least the thin film batter structurally capable of dissipating heat from the device by virtue of comprising a thermal conductivity.

c. With regard to claims 7-9, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device further comprising one or more sensor switches and one or more controllers in electrical connection to at least the electrical circuitry layer structurally capable of controlling, which includes tuning or activation in response to a feedback signal, at least one of the claimed layers (see [0027] discloses using "photo-activated switches" to control power from the electric power from the photocell to the cited battery layer which is interpreted to read on the claimed sensor switches and controller).

d. With regard to claim 10, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device further comprising one or more signal transmitters and receivers in electrical connection to one or more of said layers (see [0036] describing use of a "microprocessor" connected to the cited power supply/battery layer which is interpreted to inherently comprise signal transmitters and receivers).

e. With regard to claim 11, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device wherein said electrical circuitry layer prevents electric current drain through said photovoltaic layer (see [0027] describing switches controlling electric discharge/drain from cited photovoltaic layer depending on ambient light conditions).

f. With regard to claims 14 and 15, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device wherein the base sealing layer can be transparent (see [0024] describing “light-transmissive materials” for the cited base sealing layer).

g. With regard to claim 16, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device further comprising one or more transparent adhesive layers (see [0026] disclosing the cited illumination device, lamp of MURASKO et al., comprises a transparent electrode; see [0030] teaching the cited second electroluminescent lamp 302 maybe the same as the first described in [0026]; the transparent front electrode of the second electroluminescent lamp 302 is interpreted to read on the claimed “one or more transparent adhesive layers”

because it is a transparent layer adhered to the other component layers of the second lamp).

h. With regard to claim 17, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device wherein the illuminator layer inherently emits light in the visible and/or non-visible range.

i. With regard to claims 18-21, 25, 26, and 36, independent claim 1 and dependent claim 17 are obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device wherein the illuminator layer comprises an organic LED, electroluminescent materials, or fluorescent materials (see [0021] disclosing “organic light emitting diodes” and “electroluminescent phosphors” and the list of organic polymers which are fluorescents/luminescents) in which the cited illuminator layer is interpreted to read on the claimed “illuminating chip” limitation because it is in the form of a small circuit that emits light.

j. With regard to claims 22-24, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a

device further comprising one or more light refracting materials and light reflecting materials oriented to reflect in one or more directions (see [0026] disclosing the cited illumination device, lamp of MURASKO et al., comprises a transparent front electrode; see [0030] teaching the cited second electroluminescent lamp 302 maybe the same as the first described in [0026]; the transparent front electrode of the second electroluminescent lamp 302 is interpreted to read on the claimed “one or more light refractive materials” and also “one or more light reflective materials oriented to reflect in one or more directions” because, as it is between any two surfaces of non-equal refractive indexes, the interface between the cited transparent front electrode and the top surface of transparent front electrode facing away from the illumination device inherently refracts some degree of light and reflects some degree of light due to the difference in material composition).

k. With regard to claim 27, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device further comprising one or more layers of dielectric materials (see [0026] disclosing the cited illumination device, lamp of MURASKO et al., comprises “a dielectric layer”; see [0030] teaching the cited second electroluminescent lamp 302 maybe the same as the first described in [0026]; the dielectric layer of the second electroluminescent lamp 302 is interpreted to read on the claimed “layer of dielectric material”).

l. With regard to claims 28 and 29, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35

U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device wherein an exterior surface of the device is textured smooth ("textured" is interpreted to include an appearance of a surface; the exterior surfaces of the device depicted in MURASKO et al. FIG. 1-4 are depicted as generally planar which is interpreted to read on the claimed textured smooth).

m. With regard to claim 30, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device wherein one or more electrical components are combined in a single layer (all of the layers in the device of modified MURASKO et al. are combined and are interpreted to read on the claimed "single layer" limitations because they are combined into a single integral device).

n. With regard to claims 31 and 32, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. Process limitations such as "laminated", which do not clearly and definitely delineate the claimed structure from the structure of the prior art are given not patentable weight as the claims are filed in the statutory class of an apparatus. Modified MURASKO et al. discloses a device comprising a plurality of layers assembled edge to edge (such as the plurality of

claimed component layers in the ordered “stack” is interpreted to read on the claimed “edge to edge” because the stack comprise interfacing top and bottom edges between claimed component layers).

o. With regard to claim 33, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. MURASKO et al. discloses a device comprising a plurality of devices in electrical connection (see [0037] teaching a second electroluminescent lamp 302 in electrical connection with common power supply/battery in which the second lamp is interpreted to read on the claimed “device”).

p. With regard to claim 37, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. Process limitations such as “formed by roll-to-roll lamination” that do not clearly and definitely delineate the claimed structure from the structure of the prior art are given not patentable weight as the claims are filed in the statutory class of an apparatus.

q. With regard to claim 38, independent claim 1 is obvious over MURASKO et al. in view of CURTIN, YAMAMURA, and KAKINOTE et al. under 35 U.S.C. 103(a) as discussed above. The combination of MURASKO et al., CURTIN, YAMAMURA, and KAKINOTE et al. discloses an illumination device. Process limitations such as “printed, etched or plated” that do not clearly and definitely delineate the claimed structure from

the structure of the prior art are given not patentable weight as the claims are filed in the statutory class of an apparatus.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 5-10, 14-33, and 36-38 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

a. Applicant argues in the response filed April 16, 2012 that the cited MURASKO et al. reference of record does not disclose the newly added limitation that component layers overly one another. However, as elaborated in the rejections of the claims above, component layers overlying each other in a thin-film solar cell assembly is a conventional design, as evidenced by the previously cited YAMAMURA and KAKNITOE et al. reference, which would provide more than a reasonable expectation of success in the rearrangement of the component layers in MURASKO et al. to overly one another. Again, the obviousness position presented in the rejections of the claims may be rebutted by a showing of criticality or an unexpected result provided by the specific order of overlying component layers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUSTIN Q. DAM whose telephone number is (571)270-5120. The examiner can normally be reached on Monday through Thursday, 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Michener can be reached on (571)272-1424. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

dd
April 23, 2012

/Jennifer K. Michener/

Supervisory Patent Examiner, Art Unit 1728